

DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES

Office of Structural Materials

Quality Assurance and Source Inspection



Bay Area Branch
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Contract #: 04-0120F4Cty: SF/ALA Rte: 80 PM: 13.2/13.9File #: 69.28**WELDING INSPECTION REPORT****Resident Engineer:**Pursell, Gary**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-003324**Date Inspected:** 20-Jul-2008**Project Name:** SAS Superstructure**OSM Arrival Time:** 700**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 1730**Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China**CWI Name:** Keng Chan**CWI Present:** Yes No**Inspected CWI report:** Yes No N/A**Rod Oven in Use:** Yes No N/A**Electrode to specification:** Yes No N/A**Weld Procedures Followed:** Yes No N/A**Qualified Welders:** Yes No N/A**Verified Joint Fit-up:** Yes No N/A**Approved Drawings:** Yes No N/A**Approved WPS:** Yes No N/A**Delayed / Cancelled:** Yes No N/A**Bridge No:** 34-0006**Component:** Tower**Summary of Items Observed:**

On this date, Caltrans Office of Structure Materials (OSM) Quality Assurance Inspector (QA) Raymond Lara was present at jobsite in Zhenhua Port Machinery Company facility on Changxing Island, China for the purpose of observing and monitoring the fabrication of the OBG/Tower.

Bay 1

The Quality Assurance Inspector observed ZPMC utilizing a milling machine in the beveling process on longitudinal stiffener plate P63PB and P379SB.

The Quality Assurance Inspector observed ZPMC performing grinding and air carbon arc operations on various longitudinal stiffeners weld runoff tabs.

Skin A South Tower Assembly

The Quality Assurance Inspector observed ZPMC Caltrans approved welders 067756 and 040500, utilizing shielded metal arc welding process on temporary lifting lugs to skin plate A South Tower Assembly. The Quality Assurance Inspector observed ZPMC Quality Control Personnel record parameters and verify preheat temperatures. The welding parameters observed by the Quality Assurance Inspector appeared to be within welding procedure specification WPS-B-P-2312-TC-PS.

Bay 2**Longitudinal Stiffener**

The Quality Assurance Inspector observed ZPMC welder 040736, utilizing the flux cored arc welding process on a

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complete joint penetration in the flat position on longitudinal stiffener weld number ESDI-SA49 A/D 14A. The Quality Assurance Inspector observed ZPMC Quality Control Personnel record parameters and verify preheat temperatures. The welding parameters observed by the Quality Assurance Inspector appeared to be within welding procedure specification WPS-B-T-2231-B-U3-F.

The Quality Assurance Inspector observed ZPMC welder 040775, utilizing the flux cored arc welding process on a complete joint penetration in the flat position on longitudinal stiffener weld number ESDI-SA49 A/D 18B. The Quality Assurance Inspector observed ZPMC Quality Control Personnel record parameters and verify preheat temperatures. The welding parameters observed by the Quality Assurance Inspector appeared to be within welding procedure specification WPS-B-T-2231-B-U3-F.

Ultrasonic Testing

The Quality Assurance Inspector performed 10% random ultrasonic testing verification on skin plate B South Tower Assembly. The Quality Assurance Inspector performed the testing on the following welds; ESDI-SA216F F/K-1A, ESDI-SA216F/K-2A, ESDI-SA216G/K-7A, ESDI-SA216G/K-8B, ESDI-SA216H/K-7A, ESDI-SA216H/K-8A, ESDI-SA216H/K-8A, ESDI-SA216 F/K-9A, ESDI-SA216H/K-10B, ESDI-SA227A/K-55B, ESDI-SA216 H/K-4A, ESDI-SA216 H/K-1A, and ESDI-SA216 H/K-2A . See Caltrans report TL-6027 Ultrasonic Testing Report, dated July 20, 2008 for additional information.

The Quality Assurance Inspector observed ZPMC personnel in process of perform a survey of skin plate A East Tower Assembly.

Bay 3

The Quality Assurance Inspector observed ZPMC grinding and performing flux core arc welding (FCAW) on visual weld repairs on Orthotropic Box Girders (OBG)DP-038-002, DP-407-001, DP-432-001, and DP-460-001 .

The Quality Assurance Inspector performed a random initial visual observation on Orthotropic Box Girder (OBG) DP-044-001. The Quality Assurance Inspector observed several areas of under fill and undercut. ZPMC and American Bridge/Fluor Quality Control Inspector agreed with the visual observations found by the Quality Assurance Inspector. ZMPC Quality Control Inspector informed the Quality Assurance Inspector, he will contact the Quality Assurance Inspector when the repairs are complete.



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Summary of Conversations:

No relevant conversations on this date.

Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Joshua Ishibashi, (707) 649-5453, who represents the Office of Structural Materials for your project.

Inspected By:	Lara,Raymond	Quality Assurance Inspector
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Reviewed By:	Lanz,Joe	QA Reviewer
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